

AMENDMENTS TO THE CLAIMS

1. (currently amended) A software appliance apparatus for locally enhancing, at the software appliance apparatus, a remote programming broadcast comprising:

a central processing unit;

a receiver coupled to said central processing unit for receiving said programming broadcast from a remote service provider;

a local memory device electrically coupled to said central processing unit;

a data structure contained and stored on said memory device, said data structure

configured to locally enhance, at the software appliance apparatus, said programming broadcast with a local service that provides at least one of (i)

content and (ii) functionality to said programming broadcast, wherein said local service is provided by a local service provider without notification to the remote service provider and wherein said local service bypasses said remote service provider and bypasses a distribution system used for said remote programming broadcast;

a connection coupled to said central processing unit to provide said remote programming broadcast and said local service for rendering on a local television display; and

a monitoring and billing module, coupled to the memory device, to monitor activity of said local service and to transmit a record of the activity to the third party so as to permit billing a recipient based on the activity monitored.

2. (original) The software appliance apparatus according to claim 1, wherein the apparatus operates within a Digital TV Application Software Environment (DASE).

3. (original) The software appliance apparatus according to claim 1, wherein the data structure is Program and System Information Protocol ("PSIP") compatible.

4. (previously presented) The software appliance apparatus according to claim 1, further comprising a reader, coupled to the central processing unit, to read content on said local memory device and to transmit it as at least part of said local service.

5. (previously presented) The software appliance apparatus according to claim 1, wherein the software appliance further comprises a connector configured to receive a personal digital assistant (PDA) or a computer device.

6. (canceled)

7. (canceled)

8. (previously presented) The software appliance apparatus according to claim 1, wherein said software application apparatus is configured to reside within a set top box.

9. (currently amended) A method for locally enhancing a programming broadcast from a remote service provider for rendering on a local television display, the method comprising:

receiving, at a receiving device, a programming broadcast from a remote service provider through a distribution system provided by the remote service provider;
locally enhancing the programming broadcast with a local service that provides at least one of (i) content and (ii) functionality to the programming broadcast, wherein said local service is provided by a local service provider to said receiving device without notification to the remote service provider and wherein said local service bypasses said remote service provider and bypasses said distribution system;
transmitting a request to a remote billing server for use of said local service, said billing server being provided by and controlled by said local service provider, wherein said request bypasses said remote service provider; and
providing the remote programming broadcast and the local service for rendering on a local television display connected to said receiving device.

10. (previously presented) The method according to claim 9, wherein the programming broadcast is based on a Digital TV Application Software Environment (DASE) framework.

11. (previously presented) The method according to claim 9, further comprising a step of collecting Digital Storage Media Command and Control (DSMCC) data from the programming broadcast into a local Program and System Information Protocol ("PSIP") database.

12. (previously presented) The method according to claim 9, wherein the local service includes content on a local source disk.

13. (previously presented) The method according to claim 9, further comprising the step of remotely monitoring usage of the local service.

14. (previously presented) The method according to claim 13, further comprising the step of billing for the use of the local service.

15. (previously presented) A computer-readable code product utilized within a programmable computer environment for utilizing a remote programming broadcast and a local service, the product comprising:

computer readable code for receiving said remote programming broadcast at a receiving device from a remote service provider over a remote service provider distribution system;

computer readable code for locally enhancing said programming broadcast with said local service that provides at least one of (i) content and (ii) functionality to said programming broadcast, wherein said local service is provided by a local service provider to said receiving device without notification to the remote service provider, and wherein said local service bypasses said remote service provider and said remote service provider distribution system;

computer readable code for transmitting a request to a remote billing server for use of said local service, wherein said remote billing server is provided by and

controlled by said local service provider, and wherein said request bypasses said remote service provider; and

computer readable code for providing said remote programming broadcast and said local service for rendering on a local television display connected to said receiving device.

16. (previously presented) The product according to claim 15, wherein the product is based on a Digital TV Application Software Environment (DASE) framework.

17. (previously presented) The product according to claim 15, wherein the product is Program and System Information Protocol ("PSIP") compatible.

18. (canceled)

19. (previously presented) The product according to claim 15, further comprising computer readable code for monitoring usage of said local service.

20–28. (canceled)

29. (currently amended) A method for providing access to local software applications on a programming broadcast independently of the programming broadcast service provider, the method comprising:

providing a first programming broadcast data stream containing multiple simultaneous broadcast video components from a remote service provider on a remote broadcast distribution system;

providing a software appliance connected to the remote broadcast distribution system and configured to receive the first programming broadcast data stream comprising:

- an input signal receiver;
- an input signal demodulator and decoder;
- a computer-readable media containing a local service provided by a local service provider without notification to the remote service provider, the local service being a local software application and providing at least one of (i) content and (ii) functionality to the first programming broadcast data stream; and
- an output signal encoder and modulator;

receiving the first programming broadcast data stream at the software appliance;

adding the local service to the first programming broadcast data stream with the software appliance, wherein the addition of the local service bypasses the remote service provider; and

generating a second programming broadcast data stream containing multiple simultaneous broadcast video components at the output signal encoder and modulator, the second programming broadcast data stream containing the multiple simultaneous broadcast video components from the first programming broadcast data stream and the local service.

30. (currently amended) The method of claim 29 wherein the steps of adding the local service to the first programming broadcast data stream bypassing the remote service provider and generating the second programming broadcast data stream comprise the steps of:

demodulating the first programming broadcast data stream;

decoding the first programming broadcast data stream;

injecting the local service into the first programming broadcast data stream to create an augmented data stream;

encoding the ~~first programming broadcast and the local service~~ augmented data stream;

and

modulating the ~~first programming broadcast and the local service~~ augmented data stream to form the second programming broadcast data stream.

31. (previously presented) The method of claim 29 wherein the local service comprises a service selected from the group of:

a broadcast filtering service;

a personal computer replacement;

a display enhancing device for PDAs and computers;

a third programming broadcast that includes channels and services to be added to the first programming broadcast;

a local advertisement;

pay-per-view games;

pay-per-view movies;

check-out services from a hotel; and

local software contained on a computer-readable media communicative with the software appliance.

32. (previously presented) The method of claim 29 wherein the software appliance further comprises a monitoring and billing module to monitor activity of the local service, the method further comprising:

transmitting a request to a remote billing server for use of the local service, the billing server being provided by and controlled by the local service provider, wherein the request bypasses the remote service provider.

33. (currently amended) The method of claim 32 wherein the software appliance is one of a plurality of software appliances so that one software appliance is a first software appliance adding a first local service and another software appliance is a second software appliance adding a second local service and wherein the second programming broadcast data stream of the first software appliance serves as the first programming broadcast data stream of the second software appliance, thus forming a flexible programming and billing tree.

34. (currently amended) The method of claim 29 wherein the software appliance is one of a plurality of software appliances so that one software appliance is a first software appliance adding a first local service and another software appliance is a second software appliance adding a second local service and wherein the second programming broadcast data stream of the first software appliance serves as the first programming broadcast data stream of the second software appliance, thus forming a flexible programming and billing tree.

35. (previously presented) The method of claim 29 wherein the first programming broadcast data stream is based on a Digital TV Application Software Environment (DASE) framework.

36. (previously presented) The method of claim 29 further comprising the step of remotely monitoring the usage of the local service.

37. (previously presented) The method of claim 29 further comprising billing for the use of the local service.

38. (previously presented) The method of claim 29 wherein the software application is configured to reside within a set-top box.